

# United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
 10/538,841	12/19/2005	Sascha D'Angelico	DANG300/FJD	5664
23364 BACON & TH	7590 05/04/2007 IOMAS, PLLC		EXAMINER	INER
625 SLATERS	LANE	KINKEAD, ARN		ARNOLD M
FOURTH FLOOR ALEXANDRIA, VA 22314			ART UNIT	PAPER NUMBER
	, ,		2817	
				<del> </del>
			MAIL DATE	DELIVERY MODE
			05/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)				
	Office Action Summers	10/538,841	D'ANGELICO, SASCHA				
	Office Action Summary	Examiner	Art Unit				
		Arnold Kinkead	2817				
Period fo	The MAILING DATE of this communication app or Reply	pears on the cover sheet with the c	orrespondence address				
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DAMPINION OF THE MAILING TH	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim will apply and will expire SIX (6) MONTHS from a cause the application to become ARANDONE.	l.  lely filed  the mailing date of this communication.  1. (35 U.S.C. & 133)				
Status							
1)⊠	Responsive to communication(s) filed on <u>Prel.</u>	amdt	•				
	·	action is non-final.					
	<i>,</i> —		secution as to the merits is				
.—	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposit	ion of Claims						
4)⊠	Claim(s) 12-23 is/are pending in the application	n.					
	4a) Of the above claim(s) is/are withdray						
_	Claim(s) 18-21 and 23 is/are allowed.	,					
_	6)⊠ Claim(s) <u>12-14 and 22</u> is/are rejected.						
7)🖂	7)⊠ Claim(s) <u>15-17</u> is/are objected to.						
8)	Claim(s) are subject to restriction and/o	r election requirement.					
Applicati	ion Papers						
9) The specification is objected to by the Examiner.							
10)⊠ The drawing(s) filed on <u>13 June 2005</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.							
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority (	under 35 U.S.C. § 119		·				
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of:							
	1. Certified copies of the priority documents have been received.						
	2. Certified copies of the priority documents have been received in Application No						
	3. Copies of the certified copies of the prior	-	d in this National Stage				
* 0	application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.							
Attachmen		"П.,	(DTO 440)				
	e of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary Paper No(s)/Mail Da					
3) Infor	mation Disclosure Statement(s) (PTO/SB/08)	5) Notice of Informal P					
Раре	r No(s)/Mail Date	6)	Shureas				

Art Unit: 2817

#### **DETAILED ACTION**

### **Priority**

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-14 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Yano et al(US 4,595,854).

The reference by Yano et al discloses a device for operating an oscillatable unit, see figures 3 and 4, where the device oscillatable unit(vibration resonator 10), feedback electronics(diodes 42,or 44, as well as switch 32) also allow for peak compensation(via inductor 22) during charge reversal of piezodrive that allows for charge/discharge cycle of resonator. The switch element(32) being controlled by the applied exciter/drive voltage signal; note that when the damp signal is applied switch 38 allows for the grounding at the falling edge of drive signal. Please see col. 4, lines 46-60:

<sup>&</sup>quot;(12) When a damp signal which builds up to a high level immediately after a fall of the drive signal is applied to the base of a transistor 38 in the switching circuit 28, the

Application/Control Number: 10/538,841

Art Unit: 2817

collector and emitter of the transistor 38 are rendered conductive causing one end of the resistor 26 into connection with ground. This completes a serial closed path made up of the winding 22 and resistor 26 through which any residual charge in the PZ stack 10 is dissipated.

(13) An AC current flows into the switching circuit 24 (or 28). To accommodate such that current, the switching circuit 24 (or 28) is furnished with a diode 40 for intercepting a current directed reversely to the transistor 32 and a diode 42 (or 44) constituting a feedback element for bypassing the reverse current. "

A current to voltage converter (26) is shown as a resistor.

## Allowable Subject Matter

Claims 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18-21 and 23 allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold Kinkead whose telephone number is 571-272-1763. The examiner can normally be reached on Hoteling.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/538,841

Art Unit: 2817

Page 4

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Arnold Kinkead 04-27-07